DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-014267

Address: 333 Burma Road **Date Inspected:** 22-May-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1500 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Li Jia **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No

Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component:** Orthotropic Box Girder (OBG) components

Summary of Items Observed:

On this day CALTRANS Office of Structural Materials (OSM) Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG BAY 7

This QA observed ZPMC qualified welding personnel identified as 048625 perform Flux Cored Arc Weld (FCAW) buttering on the ends of 16 traveler rails. QA noted that the welder was building up the thickness of the previously buttered end. The buttered area had been ground smooth and ZPMC Quality Control (QC) inspected the thickness of the areas and found a number of them to be too thin. ZPMC QC identified as Mr. Cui Jun Jie was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with approved Critical Weld Repair (CWR) # B-CWR-1100 and WPS-345-FCAW-1G (1F)-repair-1.

This QA observed ZPMC personnel performing various tasks and functions relative to the fabrication of OBG corner assembly deck panels in this bay. QA noted that deck panel identified as DP3153-001 is on Gantry table #1. This DP appears to have all the I-Ribs fit and tack welded to the deck plate. QA observed 2 ZPMC workers grinding the tack welds on this DP in preparation for final welding.

This QA noted that deck panels identified as DP3095-001, DP3129-001 and DP3126-001 are all on gantry table 2. DP3095-001 appears have the I-ribs 100% welded to the deck plate. Workers were observed cleaning and grinding the completed welds. DP3129-001 appears have the I-ribs 100% welded to the deck plate and is sitting

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idle. DP3126-001 appears to have the I-ribs fit and tack welded to the deck plate and sitting idle.

OBG BAY 8

This QA observed ZPMC personnel performing various tasks and functions relative to the fabrication of crossbeam CB17, bike path BK4A-056 and tower interior splice plate components identified as SSD1-SPSA5. This QA noted that Caltrans (CT) QA inspector identified as Mr. Shailesh Wadkar was covering the QA observations and inspection of CB17 in this bay.

This QA observed two ZPMC personnel drilling holes in tower components identified as SSD1-SA5. The components being drilled are a part of the tower interior splice plates. There appeared to be approximately 23 of these components in this bay.

This QA observed bike path segment identified as BK004A-056 is partially fit and welded in this bay. During random in process Visual Testing (VT) of some of the welds on this bike path, this QA observed the weld profile of weld identified as BK004A-056-006 does not appear to meet the quality requirements of AWS D1.5 2002. QA noted that ZPMC is still in process of grinding and repairing this weld. QA observed no work was being performed on this bike path during the time QA was present. See attached pictures for details of the weld profile issues on the above mentioned weld.

OBG BAY 5

This QA observed that ZPMC has been fabricating OBG traveler rails in this bay, however, no significant work was being performed on the traveler rails during the time this QA was present.

OBG BAY 6

This QA observed ZPMC has been fabricating the west jacking frame and other jacking frame components in this bay, however, no significant work was being performed on the jacking frame during the time this QA was present.

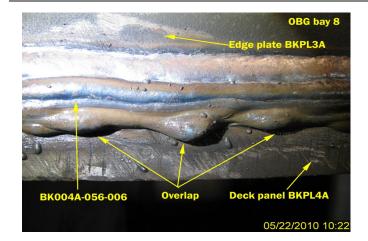
Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

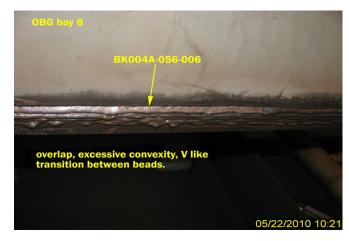




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Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (15000422372), who represents the Office of Structural Materials for your project.

Inspected By:	Hall,Steven	Quality Assurance Inspector
Reviewed By:	Patterson, Rodney	QA Reviewer